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May 18, 1990

DERWENT-ACC-NO: 1990-197508  
DERWENT-WEEK: 199730  
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TITLE: Magnetic disk with improved protection layer - comprising phosphorus-doped silicon film and carbonaceous film

## PATENT-ASSIGNEE:

ASSIGNEE	CODE
NEC CORP	NIDE

PRIORITY-DATA: 1988JP-0281322 (November 9, 1988)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
JP 02130721 A	May 18, 1990		000	
JP 2623785 B2	June 25, 1997		005	G11B005/72

## APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
JP 02130721A	November 9, 1988	1988JP-0281322	
JP 2623785B2	November 9, 1988	1988JP-0281322	
JP 2623785B2		JP 2130721	Previous Publ.

INT-CL (IPC): G11B 5/72; G11B 5/82

ABSTRACTED-PUB-NO: JP 02130721A  
BASIC-ABSTRACT:

The protection film comprises a P-doped silicon coating film formed on the magnetic disc substrate and a hard carbonaceous carbon film contg. H, Si and F formed on the silicon film.

ADVANTAGE - The protection film has improved abrasion resistance, lubricity and adhesion with the recording medium.

10-100mm

In an example, magnetic disc is prepd. by plating Co-NI-P alloy magnetic film on an Al alloy substrate. 80 Angstrom thick P-doped silicon film is formed on it by magnetron sputtering. 100-1000 Angstrom thick carbonaceous protection film is formed by DC glow discharge plasma gas phase synthesis (several 100 V, 0.1-1 mA/sq.cm.) for 5 minutes, introducing CH<sub>4</sub> gas diluted to 1-5 vol.% by H<sub>2</sub>, silane gas diluted to 2 vol.% by H<sub>2</sub>, and CF<sub>4</sub> gas diluted to 1 vol.% by H<sub>2</sub> at 0.1 Torr. @ (6pp)@

TITLE-TERMS: MAGNETIC DISC IMPROVE PROTECT LAYER COMPRISE PHOSPHORUS DOPE SILICON FILM CARBONACEOUS FILM

DERWENT-CLASS: L03 M13 T03

CPI-CODES: L03-B05B; L03-B05K1; M13-E; M13-F; M13-G;

EPI-CODES: T03-A01B5; T03-A01C1; T03-N01;

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C1990-085686

Non-CPI Secondary Accession Numbers: N1990-153537